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Alexander J. Burke
Intellectual Property Department
5th Floor
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

RAPILLO, KRISTINE K

ART UNIT	PAPER NUMBER
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3609

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/681,709

Applicant(s)

KNAPP, ROBERT ERNEST

Examiner

Kristine K. Rapillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/8/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1 – 24 are pending.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "10400" has been used to designate both Data Base and Data Table in paragraph [0071] of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3. Claims 1, 3, 5 – 6, 10 – 11, 13 - 15, 17, 19, 21 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following phrases are vague and indefinite as to what a first diagnostic code and a second diagnostic code refer to as well as the first assignment system and second assignment system: an interface processor for receiving a visit record comprising a first diagnostic code derived by using a first assignment system and a source of rules for processing said visit record to determine a second diagnostic code compatible with a second assignment system. For the purpose of examination, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim stating, "said first diagnostic code equals said second diagnostic code" is unclear. For examination purposes, the first diagnostic code cannot equal the second diagnostic code as interpreted because one is a treatment

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(CPT) and one is the diagnosis (ICD). Therefore the examiner interprets this claim to mean the diagnostic codes correspond or relate to one another rather than be equal to each other.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim as written, "wherein said interface processor receives said visit record wherein said first diagnostic code is a null code, and said data processor processes said visit record, said rules to provide said visit record including said second diagnostic code" is unclear as to the relationship between the first and second diagnostic codes. The examiner interprets the null code of this claim to be equivalent to an unknown diagnosis (i.e. shows signs and symptoms of multiple diseases), where the unknown diagnosis can be assigned a generic code, yet a second diagnostic code, with the applicable treatments/procedures, can still be assigned.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 6, a system according to claim 1, wherein said second assignment system comprises a predetermined system of rules for assigning said second diagnostic code to said visit record based on characteristics of said visit as determined from information contained in said visit record. The claim is vague and indefinite as the function of the second diagnostic code is unclear. For

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examination purposes, the Examiner has treated the characteristics to be the signs and symptoms of the patient observed during a doctors visit which thereby prompts the system to assign a second diagnostic code (treatment or procedure applicable to the first diagnosis code).

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 10, a system according to claim 1, wherein said data processor uses said rules for processing a plurality of visit records and corresponding associated first diagnostic codes using said rules to provide said plurality of visit records including second diagnostic codes compatible with said second assignment system by, identifying whether said first diagnostic codes are incompatible with said second assignment system and for visit records comprising incompatible codes, assigning second diagnostic codes to be compatible with said second assignment system and for visit records comprising compatible codes, using said first diagnostic codes as said second diagnostic codes. The claim as written is vague and indefinite. For examination purposes, the Examiner has interpreted the system described to allow a physician to review various first diagnostic codes to determine which codes are compatible with the second diagnosis codes in order to justify the diagnosis or treatment. The Examiner has treated the first diagnostic code as a classification of disease (ICD) and the second diagnosis code as the treatment or procedure associated with the classification of disease. The ICD codes will be

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compatible with the treatment of procedure codes (CPT) that correspond with the ICD codes.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 11, the first diagnostic code and the first assignment system are vague and indefinite – unclear as to the function of the first assignment system, the claim is unclear as the second diagnostic code and second assignment system are not described and the claim is unclear as the second diagnostic code and second assignment system are not described. For examination purposes, both the first diagnostic code and the second diagnostic code will be treated as one because the examiner has interpreted the codes to be related and therefore if one is valid within a timeframe the other will be valid. In addition, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 13, the claim is unclear as to the processing of the second diagnostic code in relation to the first diagnostic code. For examination

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purposes, both the first diagnostic code and the second diagnostic code will be treated as one because the examiner has interpreted the codes to be related and therefore if one is valid within a timeframe the other will be valid. In addition, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 14, the compatibility of a diagnostic code with an assignment system is unclear. For examination purposes, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 15, the first diagnostic code and the first assignment system are vague and indefinite – unclear as to the function of the first assignment system, the claim is unclear as the second diagnostic code and second

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assignment system are not described and the claim is unclear as the second diagnostic code and second assignment system are not described. For the purpose of examination, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis. There is no difference between processing a group of visit records versus individual visit records.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 17, the following phrases are vague and indefinite as to what a first diagnostic code and a second diagnostic code refer to as well as the first assignment system and second assignment system: receiving a visit record comprising a first diagnostic code derived by using a first assignment system and retrieving rules for processing said visit record to determine a second diagnostic code compatible with a second assignment system. The terms first diagnostic code, second diagnostic code, first assignment system, and second assignment system are unclear. For the purpose of examination, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 19, the first diagnostic code and the first assignment system are vague and indefinite – unclear as to the function of the first assignment system, the claim is unclear as the second diagnostic code and second assignment system are not described. For examination purposes, both the first diagnostic code and the second diagnostic code will be treated as one because the examiner has interpreted the codes to be related and therefore if one is valid within a timeframe the other will be valid. In addition, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. . In regard to claim 21, the first diagnostic code and the first assignment system are vague and indefinite – unclear as to the function of the first assignment system, the claim is unclear as the second diagnostic code and second assignment system are not described. For examination purposes, both the first diagnostic code and the second diagnostic code will be treated as one because the examiner has interpreted the codes to be related and therefore if one is valid within a

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timeframe the other will be valid. In addition, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 23, the claim is unclear, as the second diagnostic code and second assignment system are not described. For examination purposes, both the first diagnostic code and the second diagnostic code will be treated as one because the examiner has interpreted the codes to be related and therefore if one is valid within a timeframe the other will be valid. In addition, the first assignment system will be International Classification of Diseases (ICD) and the second assignment system will be Current Procedural Terminology (CPT), however these systems are interchangeable since often a physician will need a clinical test prior to making a diagnosis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the

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United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3, 6 – 10, 17, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Pollard et al. (U.S. Publication No. 2002/0147616 A1).

In regard to claim 1, Pollard et al. teaches a system for associating a diagnostic code to a visit record of a patient visit, comprising:

- An interface processor for receiving a visit record comprising a first diagnostic code derived by using a first assignment system (paragraph [0051]);
- A source of rules for processing said visit record to determine a second diagnostic code compatible with a second assignment system (paragraph [0051]);
- A data processor for processing said visit record and said first diagnostic code using said rules to provide said visit record including said second diagnostic code (paragraph [0051]); and
- An output processor for processing said visit record including said second diagnostic code compatible with said second assignment system to be suitable for output to a user (paragraph [0053]).

In regard to claim 3, Pollard et al. teaches a system according to claim 1, wherein said first diagnostic code equals said second diagnostic code (paragraph [0037]).

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In regard to claim 6, Pollard et al. teaches a system according to claim 1, wherein said second assignment system comprises a predetermined system of rules for assigning said second diagnostic code to said visit record based on characteristics of said visit as determined from information contained in said visit record (paragraph [0051]).

In regard to claim 7, Pollard teaches a system according to claim 6, wherein said second assignment system comprises at least one of, (a) a CMS Grouper, (b) a Champus Grouper, (c) an All-Patient DRG Grouper and (d) a United States state associated Grouper (paragraph [0051]).

In regard to claim 8, Pollard et al. teaches a system according to claim 1, wherein said second diagnostic code is derived from a code set including at least one of: (a) ICD-9-CM, (b) ICD-10, (c) HCPCS, (d) NDC, (e) CPT-4, (f) CDPN, (g) SNOMED-RT, (h) UMLS, (i) LOINC (j) "Read Codes", (k) DIN, (l) CDT, (m) NIC, and (n) DRGs Diagnosis Related Groups (paragraph [0051]).

In regard to claim 9, Pollard et al. teaches a system according to claim 1, wherein said data processor uses said rules, for, identifying whether said first diagnostic code is incompatible with said second assignment system and if said first diagnostic code is incompatible, assigning said second diagnostic code to be compatible with said second assignment system (paragraph [0053]).

In regard to claim 10, Pollard et al. teaches a system according to claim 1, wherein said data processor uses said rules for processing a plurality of visit records and corresponding associated first diagnostic codes using said rules to provide said plurality of visit records including second diagnostic codes compatible with said second assignment system by, identifying whether said first diagnostic codes are incompatible with said second assignment system and for visit records comprising incompatible codes, assigning second diagnostic codes to be compatible with said second assignment system and for visit records comprising compatible codes, using said first diagnostic codes as said second diagnostic codes (paragraph [0053]).

In regard to claim 17, Pollard et al. teaches a method for associating a diagnostic code to a record of a patient visit, comprising the activities of:

- Receiving a visit record comprising a first diagnostic code derived by using a first assignment system (paragraph [0051]);
- Retrieving rules for processing said visit record to determine a second diagnostic code compatible with a second assignment system (paragraph [0051]);
- Processing said visit record and said first diagnostic code using rules to provide said visit record including said second diagnostic code (paragraph [0051]); and
- Initiating communication of said visit record including said second diagnostic code compatible with said second assignment system to a destination system

(paragraph [0053]).

In regard to claim 24, Pollard et al. teaches a machine-readable medium having stored thereon:

- Instructions adapted to process a visit record, the visit record comprising a first diagnostic code created by a first assignment system, using at least one of a set of rules to provide the visit record comprising a second diagnostic code (paragraph [0051]); and
- The set of rules adapted to process the visit record to determine the second diagnostic code compatible with a second assignment system comprising information adapted to derive a diagnostic code set (paragraph [0051]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 4, 11 – 14, and 19 - 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollard et al. in view of Cave et al. (U.S. Patent No. 5,970,463) in further view of Dang (U.S. Patent No. 5,835,897).

In regard to claim 4, Pollard et al. teaches a system for associating a diagnostic code to a visit record of a patient as per claim 1.

Pollard et al. fails to teach rules associated with particular time periods of validity for processing the visit record to determine the second diagnostic code compatible with the second assignment system, data processor processes said visit record and said first diagnostic code using said rules to provide said visit record including said second diagnostic code valid for a particular time period encompassing a date of said visit and an individual set of rules with a time period of validity determined by a start and end date.

Cave et al. teaches sets of rules associated with particular time periods of validity for processing said visit record to determine said second diagnostic code compatible with said second assignment system valid during a particular time period (column 6, lines 42 – 54) and said data processor processes said visit record and said first diagnostic code using said rules to provide said visit record including said second diagnostic code valid for a particular time period encompassing a date of said visit (column 7, lines 63 – 67 through column 8, line 11).

Cave et al. fails to teach an individual set of rules has a time period of validity determined by a start date and an end date.

Dang teaches an individual set of rules has a time period of validity determined by a start date and an end date (column 19, lines 3 – 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an individual set of rules has a time period of validity determined by a start date and an end date as taught by Dang with the motivation of creating a patient classification system (column 5, lines 43 – 46) which allow for the measurement and quantification of health care for specific treatments.

In regard to claim 11, Pollard et al. teaches a system for associating a diagnostic code to a record of a patient visit, comprising an interface processor for receiving a visit record comprising a first diagnostic code derived by using a first assignment system (paragraph [0051]).

Pollard et al. fails to teach a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine a second diagnostic code compatible with a second assignment system valid during a particular time period; a data processor for processing said visit record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit; and an output processor for initiating communication of data, representing said visit record and said second diagnostic code compatible with said second assignment system, to a destination system in response to a command.

Cave et al. teaches a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine a second diagnostic code

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compatible with a second assignment system valid during a particular time period (column 6, lines 42 – 54) and a data processor for processing said visit record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit (column 7, line 63 through column 8, line 11).

Cave et al. fails to teach an output processor for initiating communication of data, representing said visit record and said second diagnostic code compatible with said second assignment system, to a destination system in response to a command.

Dang teaches an output processor for initiating communication of data, representing said visit record and said second diagnostic code compatible with said second assignment system, to a destination system in response to a command (column 9, lines 1 – 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an output processor for initiating communication of data, representing said visit record and said second diagnostic code compatible with said second assignment system, to a destination system in response to a command as taught by Dang with the motivation of allowing a user to track past and current treatments and allow the correct assignment of the diagnostic code (column 9, lines 13 – 19).

In regard to claim 12, Pollard et al. teaches a system as per claim 11.

Pollard et al. fails to teach rules associated with particular time periods of validity for processing the visit record to determine the second diagnostic code compatible with the second assignment system valid during a particular time period, an individual set of rules with a time period of validity determined by a start and end date, and a data processor that processes the visit record and first diagnostic code using rules to provide the visit record including second diagnostic code valid for a particular time period encompassing a date of visit.

Cave et al. teaches rules associated with particular time periods of validity for processing said visit record to determine said second diagnostic code compatible with said second assignment system valid during a particular time period (Cave et al., column 6, lines 42 – 54) and a data processor that processes said visit record and said first diagnostic code using said rules to provide said visit record including said second diagnostic code valid for a particular time period encompassing a date of said visit (Cave et al., column 7, line 63 through column 8, line 11).

Cave et al. fails to teach an individual set of rules has a time period of validity determined by a start date and an end date.

Dang teaches an individual set of rules has a time period of validity determined by a start date and an end date (column 19, lines 3 – 9).

The motivation for combining the teachings of Pollard et al., Cave et al., and Dang is discussed in the rejection of claim 4, and incorporated herein.

In regard to claim 13, Pollard et al. teaches a system as per claim 11.

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Pollard et al. fails to teach a plurality of sets of rules for processing said visit record and said first diagnostic code, for processing said visit record to determine said second diagnostic code compatible with said second assignment system valid during the particular time period; and the data processor for processing said received record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit.

Cave et al. teaches a plurality of sets of rules for processing said visit record and said first diagnostic code, for processing said visit record to determine said second diagnostic code compatible with said second assignment system valid during the particular time period (column 4, lines 36 – 40 and column 7, line 63 through column 8, line 11).

Cave et al. fails to teach the data processor for processing said received record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit.

Dang teaches the data processor for processing said received record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit (column 20, lines 21 – 29) where Dang's invention can include both first and second diagnosis codes.

The motivation for combining the teachings of Pollard et al., Cave et al., and Dang is discussed in the rejection of claim 4, and incorporated herein.

In regard to claim 14, Pollard et al. teaches a system for associating a diagnostic code to a record of a patient visit, comprising: an interface processor for receiving a visit record (paragraph [0051].

Pollard et al. fails to teach a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine said diagnostic code compatible with an assignment system valid during a particular time period, a data processor for processing said visit record using said sets of rules to provide said visit record including said diagnostic code, said diagnostic code being valid for a particular time period encompassing a date of said visit, and an output processor for initiating communication of data, representing said visit record and said diagnostic code compatible with said assignment system, to a destination system in response to a command.

Cave et al. teaches a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine said diagnostic code compatible with an assignment system valid during a particular time period (column 6, lines 42 – 54) and a data processor for processing said visit record using said sets of rules to provide said visit record including said diagnostic code, said diagnostic code being valid for a particular time period encompassing a date of said visit (column 7, lines 63 through column 8, line 11).

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Cave et al. fails to teach an output processor for initiating communication of data, representing said visit record and said diagnostic code compatible with said assignment system, to a destination system in response to a command.

Dang teaches an output processor for initiating communication of data, representing said visit record and said diagnostic code compatible with said assignment system, to a destination system in response to a command (column 9, lines 1 – 12).

The motivation for combining the teachings of Pollard et al., Cave et al., and Dang is discussed in the rejection of claim 11, and incorporated herein.

In regard to claim 19, Pollard et al. teaches a method for associating a diagnostic code to a record of a patient visit, comprising the activities of:

Receiving a visit record comprising a first diagnostic code derived by using a first assignment system (paragraph [0051]).

Pollard et al. fails to teach a system of retrieving sets of rules associated with particular time periods of validity, for processing said visit record to determine a second diagnostic code compatible with a second assignment system valid during a particular time period, processing said visit record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit, and initiating communication of data, representing said visit record and said

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second diagnostic code compatible with said second assignment system, to a destination system in response to a command.

Cave et al. teaches a system of retrieving sets of rules associated with particular time periods of validity, for processing said visit record to determine a second diagnostic code compatible with a second assignment system valid during a particular time period (column 6, lines 42 – 54) and processing said visit record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code (column 7, line 63 through column 8, line 11).

Cave et al. fails to teach initiating communication of data, representing said visit record and said second diagnostic code compatible with said second assignment system, to a destination system in response to a command.

Dang teaches initiating communication of data, representing said visit record and said second diagnostic code compatible with said second assignment system, to a destination system in response to a command column 9, lines 1 – 12).

The motivation for combining the teachings of Pollard et al., Cave et al., and Dang is discussed in the rejection of claim 11, and incorporated herein.

In regard to claim 20, Pollard et al. and Cave et al. teach a system for associating a diagnostic code to a record of a patient visit as per claim 19.

Pollard et al. and Cave et al. fail to teach storage medium containing computer readable instructions for performing said activities of the method of claim 19.

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Dang teaches a storage medium according to claim 19 containing computer readable instructions for performing said activities of the method of claim 19 (column 20, lines 1 – 13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a storage medium according to claim 19 containing computer readable instructions as taught by Dang with the motivation of providing a computer implemented medical profiling system (column 5, lines 37 – 39).

In regard to claim 21, Pollard et al. teaches a method for associating a diagnostic code to a record of a patient visit, comprising the activities of: receiving a visit record comprising a first diagnostic code, said first diagnostic code derivable from a first assignment system (paragraph [0051]).

Pollard et al. fails to teach retrieving sets of rules associated with particular time periods of validity, for processing said visit record to determine a second diagnostic code, said second diagnostic code compatible with a second assignment system valid during a particular time period, processing said visit record using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit, and initiating communication of data, representing said visit record and said second diagnostic code compatible with said assignment system, to a destination system in response to a command.

Cave et al. teaches retrieving sets of rules associated with particular time periods of validity, for processing said visit record to determine a second diagnostic code, said second diagnostic code compatible with a second assignment system valid during a particular time period (column 6, lines 42 – 54) and processing said visit record using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit (column 7, line 63 through column 8, line 11).

The motivation for combining the teachings of Pollard et al., Cave et al., and Dang is discussed in the rejection of claim 11, and incorporated herein.

In regard to claim 22, Pollard et al. and Cave et al. teach a method for associating a diagnostic code to a record of a patient visit as per claim 21.

Pollard et al. and Cave et al. fail to teach obtaining a time dependent validity indicator relatable to the sets of rules, the time dependent validity indicator having a start date and an end date and testing said visit record comprising a first diagnostic code assignment date to verify that the first diagnostic code assignment date falls between the time dependent validity indicator start date and the time dependent validity indicator end date.

Dang teaches obtaining a time dependent validity indicator relatable to the sets of rules, the time dependent validity indicator having a start date and an end date (column 19, lines 13 – 19) and testing said visit record comprising a first diagnostic code assignment date to verify that the first diagnostic code assignment date falls between

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the time dependent validity indicator start date and the time dependent validity indicator end date (column 20, lines 23 – 28).

The motivation for combining the teachings of Pollard et al., Cave et al., and Dang is discussed in the rejection of claim 4, and incorporated herein.

In regard to claim 23, Pollard et al. teaches the method of claim 21.

Pollard et al. fails to teach grouping said visit record into a cluster having common characteristics using characteristic information in said visit record and providing said second diagnostic code compatible with the second assignment system, corresponding to the visit record in the visit record cluster.

Cave et al. teaches grouping said visit record into a cluster having common characteristics using characteristic information in said visit record (column 6, lines 33 – 41).

Cave et al. fails to teach providing said second diagnostic code compatible with the second assignment system, corresponding to the visit record in the visit record cluster.

Dang teaches providing said second diagnostic code compatible with the second assignment system, corresponding to the visit record in the visit record cluster (column 20, line 62 through column 21, line 6).

The motivation for combining the teachings of Pollard et al., Cave et al., and Dang is discussed in the rejection of claim 11, and incorporated herein.

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8. Claims 2, 5, and 15 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollard et al. in view of Dang.

In regard to claim 2, Pollard et al. teaches a system for associating a diagnostic code to a visit record of a patient as per claim 1.

Pollard et al. fails to teach a system wherein said data processor processes said rules to determine said second diagnostic code compatible with said second assignment system using a plurality of information elements in said visit record including at least one of, (a) a primary diagnosis identifier, (b) a medical procedure identifier, (c) a patient age, (d) a patient gender, (e) a secondary diagnosis identifier, (f) a service identifier identifying a service performed for a patient, (g) a length of patient stay in a medical facility, (h) an admission date, (i) a visit end date, (j) a diagnosis date and (k) a procedure date .

Dang teaches a system wherein said data processor processes said rules to determine said second diagnostic code compatible with said second assignment system using a plurality of information elements in said visit record including at least one of, (a) a primary diagnosis identifier, (b) a medical procedure identifier, (c) a patient age, (d) a patient gender, (e) a secondary diagnosis identifier, (f) a service identifier identifying a service performed for a patient, (g) a length of patient stay in a medical facility, (h) an admission date, (i) a visit end date, (j) a diagnosis date and (k) a procedure date (column 18, line 65 through column 19, line 9 and column 21, lines 27 – 39).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a system wherein said data processor processes said rules to determine said second diagnostic code compatible with said second assignment system using a plurality of information elements in said visit record including at least one of, (a) a primary diagnosis identifier, (b) a medical procedure identifier, (c) a patient age, (d) a patient gender, (e) a secondary diagnosis identifier, (f) a service identifier identifying a service performed for a patient, (g) a length of patient stay in a medical facility, (h) an admission date, (i) a visit end date, (j) a diagnosis date and (k) a procedure date as taught by Dang with the motivation to generate data based on illnesses and relevant patient data to track diagnosis and treatment of a patient (column 9, lines 13 – 27).

In regard to claim 5, Pollard et al. teaches a system for associating a diagnostic code to a visit record of a patient visit as per claim 1.

Pollard et al. fails to teach a system wherein said interface processor receives said visit record wherein said first diagnostic code is a null code, and said data processor processes said visit record, said rules to provide said visit record including said second diagnostic code.

Dang teaches a system wherein said interface processor receives said visit record wherein said first diagnostic code is a null code, and said data processor processes said visit record, said rules to provide said visit record including said second diagnostic

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code (column 9, lines 41 – 46). Dang teaches a method where an unknown diagnosis is assigned a code so that the diagnosis can be grouped into an episode treatment group (ETG). An ETG is a group of visit data based on inpatient and outpatient visits.

In regard to claim 15, Pollard et al. teaches a system for associating a diagnostic code to a record of a patient visit, comprising: an interface processor for receiving visit records individually including a first diagnostic code derived by using a first assignment system (paragraph [0051]) and a source of rules for processing individual visit records to determine a second diagnostic code, for individual visit records, compatible with a second assignment system (paragraph [0051]).

Pollard et al. fails to teach a data processor for using said rules for processing said visit records and first diagnostic codes to provide visit records including second diagnostic codes compatible with said second assignment system by, grouping visit records into clusters comprising common characteristics using characteristic information in said visit records and assigning second diagnostic codes compatible with said second assignment system, to visit records in said visit record clusters.

Dang teaches a data processor for using said rules for processing said visit records and first diagnostic codes to provide visit records including second diagnostic codes compatible with said second assignment system by, grouping visit records into clusters comprising common characteristics using characteristic information in said visit records and assigning second diagnostic codes compatible with said second assignment

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system, to visit records in said visit record clusters (column 9, lines 13 – 23). An Episode Treatment Group (ETG) can be considered a cluster of patient information (including signs, symptoms, age, gender, etc.). A cluster, as defined by Dang, is a group of services (column 20, lines 53 – 58).

In regard to claim 16, Pollard et al. teaches a system for associating a diagnostic code to a visit record of a patient as per claim 15.

Pollard et al. fails to teach a system wherein said data processor processes said rules to determine said second diagnostic code compatible with said second assignment system using a plurality of information elements in said visit record including at least one of, (a) a primary diagnosis identifier, (b) a medical procedure identifier, (c) a patient age, (d) a patient gender, (e) a secondary diagnosis identifier, (f) a service identifier identifying a service performed for a patient, (g) a length of patient stay in a medical facility, (h) an admission date, (i) a visit end date, (j) a diagnosis date and (k) a procedure date .

Dang teaches a system wherein said data processor processes said rules to determine said second diagnostic code compatible with said second assignment system using a plurality of information elements in said visit record including at least one of, (a) a primary diagnosis identifier, (b) a medical procedure identifier, (c) a patient age, (d) a patient gender, (e) a secondary diagnosis identifier, (f) a service identifier identifying a service performed for a patient, (g) a length of patient stay in a medical facility, (h) an

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admission date, (i) a visit end date, (j) a diagnosis date and (k) a procedure date (column 18, line 65 through column 19, line 9 and column 21, lines 27 – 39).

The motivation for combining the teachings of Pollard et al. and Dang is discussed in the rejection of claim 2, and incorporated herein.

In regard to claim 18, Pollard et al. teaches a method of associating a diagnostic code to a record of a patient visit as per claim 17.

Pollard et al. fails to teach a storage medium containing computer readable instructions for performing said activities of the method of claim 17.

Dang teaches a storage medium according to claim 19 containing computer readable instructions for performing said activities of the method of claim 19 (column 20, lines 1 – 13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a storage medium according to claim 19 containing computer readable instructions as taught by Dang with the motivation of providing a computer implemented medical profiling system (column 5, lines 37 – 39).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent Number 5,991,729 (Barry et al.) teaches relational databases as well as unique identification codes for the diagnosis and the patient.

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- U.S. Publication Number 2002/0147615 (Doerr et al.) teaches diagnostic codes, international classification of diseases, and diagnostic groupings.
- "LabDat Launches Comprehensive Web Site Providing Clinical Laboratory Results to Physicians and Patients." PR Newswire. New York: Jul 24, 2000. pg. 1. teaches a database of laboratory test information, coding, and terminology.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristine K. Rapillo whose telephone number is 571-270-3325. The examiner can normally be reached on Monday to Thursday 7:30 am to 5 pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KKR


AKM ULLAH
SUPERVISORY PATENT EXAMINER